



### SECTION 01440 - CONSTRUCTION QUALITY MANAGEMENT – CONTRACTOR QUALITY CONTROL

#### PART 1 GENERAL

**1.1 SCOPE:** This section sets forth requirements for construction quality management - contractor quality control.

**1.2 APPLICABLE PUBLICATIONS:** Not Used.

#### 1.3 SUBMITTALS:

**1.3.1 Quality Control Plan:** The Contractor shall submit his Quality Control Plan (QCP) not later than ten days after contract award. No delivery orders will be issued until the plan has been approved by the Government.

**1.3.2 Daily Quality Control Reports:** The Contractor shall submit Daily Quality Control Reports as specified by [Paragraph 1.9.](#)

#### 1.4 QUALITY CONTROL PLAN:

**1.4.1 General:** The Contractor shall develop, implement, and maintain a Quality Control Plan which meets or exceeds the requirements of Contract Clause FAR 52.246-0012 entitled: INSPECTION OF CONSTRUCTION. The plan shall identify personnel, lines of authority, procedures, instructions, records and forms to be used. The QCP shall provide the necessary supportive details and procedures to allow the Government to review and ascertain the adequacy of the Contractor's ability to meet all contractual requirements in terms of quality control. It shall act as the Contractor's baseline QC document from which all subsequent changes will be made. In the event the Government finds the QCP and implementation do not accomplish their objective, the Government may require correction. The Government will specify the suspense times for submission of revision of the QCP and acceptance by the Government.

During the contract, the Contractor shall monitor the QCP and update as necessary. The Contractor shall submit requests for updates/revisions to the plan to the Contracting Officer no less than ten working days prior to the date any proposed changes to the plan would occur. In the event the updates/revisions are not accepted, the Government will advise the Contractor and will specify the suspense time for additional revisions.

**1.4.2 Quality Control Plan:** The plan shall include as a minimum, the following:

**1.4.2.1** A description of the QC organization, including chart showing lines of authority and acknowledgment that the QC staff shall report to the project manager or someone higher in the Contractor's organization.

**1.4.2.2** The name, qualifications, duties, responsibilities and authorities of each person assigned a QC function.

**1.4.2.3** A copy of the letter to the QC Manager signed by an authorized official of the firm, which describes the responsibilities and delegates the authorities of the QC manager shall be furnished.

**1.4.2.4** Procedures for managing submittals including those of subcontractors, offsite fabricators, suppliers and purchasing agents.

**1.4.2.5** Procedures for inspection of all work and materials.

**1.4.2.6** Procedures for inspection of all tests.

**1.4.2.7** Procedures for corrective action without dependence upon Government direction.

**1.4.2.8** Procedures for reporting including proposed reporting formats.

**1.4.3 Initial Coordination Meeting:** Prior to the start of any construction, the Contractor shall schedule and meet with the Contracting Officer and discuss the QC system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's inspection and control with the Government's inspection. Minutes of the meeting shall be prepared by the Contractor and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may also be occasions when subsequent conferences will be called to reconfirm mutual understandings.

**1.4.4 Delivery Order Coordination Meeting:** For each delivery order, prior to the start of construction, the Contractor shall schedule and meet with the Contracting Officer Representative or his designated representative and the Government Quality Assurance Representative and review the delivery order requirements, review the delivery order submittal register and verify that all shop drawing, materials and equipment submittals have been submitted and approved, verify that the delivery order progress schedule has been submitted and approved,



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review the preparatory inspections that the Contractor intends to perform for the delivery order and review all coordination and safety requirements for the delivery order.

### **1.5 QUALITY CONTROL ORGANIZATION:**

**1.5.1 Quality Control Manager:** The Contractor shall identify an individual, within his organization at the site of the work, who shall be responsible for overall QC management and have the authority to act in all QC matters for the Contractor. The Quality Control Manager (QCM) shall not have duties other than Quality Control Management. The Quality Control Manager shall be approved by the Contracting Officer and replaced if the Quality Control Manager is unable or unwilling to perform his duties as prescribed.

**1.5.2 Personnel:** A QC staff shall be maintained under the direction of the QC manager to perform all QC activities. The size of the staff during any specific work period may vary to cover work phase needs, shifts, and rate of placement. The QC staff shall have not have duties other than Quality Control. Personnel on the staff shall be fully qualified by experience and technical training to perform their assigned responsibilities and be directly hired by and work for the prime Contractor.

**1.5.3 Personnel Qualifications:** QC personnel shall be trained and experienced in QC matters and fully capable of performing their QC functions. QC inspectors shall have a working knowledge of general construction. The major areas of construction are site work, carpentry, mechanical, electrical, and finish work. QC inspectors may have expertise in one or two areas and used to inspect those areas when that type of work is on going.

**1.5.4 Minimum Staffing:** Each delivery order in progress shall be comprehensively inspected at least daily and these inspections documented.

**1.5.5 Submittals:** The CQC Organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

**1.6 CONTROLS:** Quality Control (QC) is the means by which the Contractor assures himself that his construction complies with the delivery order requirements. The controls shall be adequate to cover all construction operations, including both onsite and offsite fabrication and will be keyed to the proposed construction sequence. Quality Control includes as a minimum, the following functions:

- (1) All submittals submitted in a timely fashion.
- (2) The submittals approved.
- (3) The materials and equipment that are delivered match the approved submittal.
- (4) The materials and equipment are delivered on time to insure no delays and are in proper condition.
- (5) The materials and equipment are stored properly.
- (6) Testing provisions are reviewed and test equipment and personnel are available and correct.
- (7) All tests are performed at the proper times and in the proper places.
- (8) All test reports meet contract requirements.
- (9) The workers are cognizant of the required level of workmanship.
- (10) Each feature of work is inspected to insure the preparation for the work is correct.
- (11) Each feature of work is inspected to insure that no deficient work is covered up by succeeding work.
- (12) Inspections shall continue through out the contract.
- (13) All inspections are documented.
- (14) The documentation covers both conforming and defective work.
- (15) All deficiencies are corrected.
- (16) Procedures are developed to insure that deficiencies do not recur.
- (17) A punch list is developed for the completion inspection.
- (18) Government representatives are notified at the proper times of inspections or tests that are required.

The controls shall include at least the following three phases of inspection for all definitive features of work:

**1.6.1 Preparatory Inspection:** This shall be performed prior to beginning any work on any definable feature of work. For each delivery order, prior to the start of construction, the Contractor Quality Control Manager shall submit to the Contracting Officer's Representative a list of the features of work for which preparatory inspections will be held. Each preparatory inspection shall include a review of contract requirements, a check to assure that all materials and/or equipment have been tested, submitted and approved; a check to assure that provisions have been made to provide control testing; examination of the work area to ascertain that all preliminary work has been



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completed; and a physical examination of materials, equipment and sample work to assure that they conform to approved shop drawings or submittal data and that all materials and/or equipment are on hand. The Contracting Officer's Representative (COR) shall be notified at least 48 hours in advance of the preparatory inspection and such inspection shall be made a matter of record in the QC documentation as required below. Subsequent to the preparatory inspection and prior to commencement of work, the Contractor shall instruct each applicable worker as to the acceptable level of workmanship required in his QC plan in order to meet contract specifications.

**1.6.2 Initial Inspection:** This shall be performed as soon as a representative portion of the particular feature of work has been accomplished. The inspection shall include examination of the quality of workmanship and a review of control testing for compliance with contract requirements. The COR shall be notified at least 48 hours in advance of the initial inspection and such inspection shall be made a matter of record in the QC documentation as required below.

**1.6.3 Follow-up Inspections:** These shall be performed daily, to assure continuing compliance with contract requirements. Such inspections shall be made a matter of record in the QC documentation as required below. Final follow up inspections shall be conducted and test deficiencies corrected prior to the addition of new features of work.

### 1.7 TESTS:

**1.7.1 Testing Procedures:** The Contractor shall perform the tests specified or as required to verify that control measures are adequate to provide a product which conforms to contract requirements. The Contractor shall procure the services of an independent testing laboratory. Laboratory facilities must be approved by the Contracting Officer. A list of tests which the Contractor understands he is to perform shall be furnished as a part of the QC plan to the Contracting Officer. The list shall give the test name, specification paragraph containing the test requirements, and the personnel and laboratory responsible for each type of test. The Contractor shall perform the following activities and record and provide the following data:

**1.7.1.1** Verify that testing procedures comply with contract requirements.

**1.7.1.2** Verify that facilities and testing equipment are available and comply with testing standards.

**1.7.1.3** Check test instrument calibration data against certified standards.

**1.7.1.4** Verify that recording forms, including all of the test documentation requirements, have been prepared.

### 1.7.2 Testing:

**1.7.2.1 Capability Check:** The COR will have the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques.

**1.7.2.2 Capability Recheck:** If the selected laboratory fails the capability check, the Contractor will be assessed a charge of \$750.00 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

**1.8 COMPLETION INSPECTION:** At the completion of each delivery order or any increment thereof established by a completion time stated elsewhere in the delivery order, the QC manager shall conduct a completion inspection of the work and develop a "punch list" of items which do not conform to the approved plans and specifications. Such a list shall be included in the QC documentation, as required by Paragraph 1.9 below, and shall include the estimated date by which the deficiencies will be corrected. The QC manager or his staff shall make a second completion inspection to ascertain that all deficiencies have been corrected and so notify the COR. The completion inspection and any deficiency corrections required by this paragraph will be accomplished within the time stated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates. The completion inspection and second inspection shall be performed before the work is turned over to the Public Works Contract Inspectors as being complete.

### 1.9 DOCUMENTATION:

**1.9.1** The Contractor shall maintain a daily record of all QC operations, activities and tests, including the work of suppliers and subcontractors, for each delivery order. These records shall be maintained at the worksite throughout the term of this contract. As a minimum, a Daily Quality Control Report shall be prepared for each delivery order from the first day actual work is performed until the work is completed and accepted by the Government. The Contractor shall submit, for each delivery order, the original and two copies of the Daily Quality Control Report, to include the original and two of all attachments, to the Contracting Officer Representative, no later than five working days after the day the work is performed. It is acceptable for the Contractor to use a carbonless 4-part, four color form, with the original in white paper and a first and second copy to the Contracting



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Officer Representative and the third copy to be kept by the Contractor. The Contractor may also elect to use automated methods for maintaining these daily reports with a single copy of each report being forwarded as a file via e-mail or as a file on a 3 1/2" diskette and delivered to the COR.

**1.9.2** The Daily Quality Control Report shall include, as a minimum, a description of the work accomplished that day, the trades and subcontractors working on the project, the number of personnel working in each trade, weather conditions encountered, any delays encountered, and acknowledgment of deficiencies noted along with the corrective actions taken on current and previous deficiencies. Records shall also include factual evidence that required activities or tests have been performed, including, but not limited to, the items below:

**1.9.2.1** Type and number of QC inspections and tests accomplished.

**1.9.2.2** Results of QC inspections and tests.

**1.9.2.3** Nature of defects, causes for rejection, etc.

**1.9.2.4** Proposed remedial action.

**1.9.2.5** Corrective actions taken.

**1.9.3** A sample QC Report form may be found at the end of this section. The Contractor may use this form or a form of his own design so long as it contains the same information.

**1.10 NOTIFICATION OF NONCOMPLIANCE:** The Contracting Officer will notify the Contractor of any noncompliance with the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his representative at the site of the work, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop work orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

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## DAILY CONSTRUCTION QUALITY CONTROL REPORT (Contractor's Name and Address)

**Contract No:** DAKF19-

Date:

Report No:

**Description and Location of Work:**

| Weather: |  | ; Temperature: Min | Max | ; Precip: Inches | Type |
|----------|--|--------------------|-----|------------------|------|
|----------|--|--------------------|-----|------------------|------|

**Contractor/Subcontractors:** (Areas of responsibility and labor count for each.)

a.

b.

C.

d.

e.

f.

**Equipment Data:** (Indicate items of construction equipment, other than hand tools, at the job site, and whether or not used.)

**Work Performed Today:**

Estimated % Complete

**Results of Surveillance:** (Include satisfactory work inspected, deficiencies found, corrective actions taken, and when corrective actions are completed and reinspected.)

**Material Inspected:** (Include any material arrived on site, also material incorporated in the construction.)



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(Contractor's Name and Address)

### Tests Required, Performed and Results:

**Instructions Received or Given:** (Include any instructions received from, or given to, Government representatives or other Government contractors.)

**Remarks:** (Include any item not addressed in other sections, problems with plans or specifications, any disputes.)

**Safety:** (Note all unsafe conditions, equipment, personnel, surroundings and corrective actions, also safety meetings.)

### Correspondence:

| Documents on Work Site                   |  | yes | no | Submittal<br>Number | Date<br>Sent | Date<br>Received | Approved |    |
|--|--|-----|----|---------------------|--------------|------------------|----------|----|
|  |  |     |    |                     |              |                  | yes      | no |
| Plans                                    |  |     |    |                     |              |                  |          |    |
| Specifications                           |  |     |    |                     |              |                  |          |    |
| Manufacturer's Installation Instructions |  |     |    |                     |              |                  |          |    |
| Shop Drawings                            |  |     |    |                     |              |                  |          |    |
| Permits                                  |  |     |    |                     |              |                  |          |    |
| Other:                                   |  |     |    |                     |              |                  |          |    |
|  |  |     |    |                     |              |                  |          |    |
|  |  |     |    |                     |              |                  |          |    |
|  |  |     |    |                     |              |                  |          |    |
|  |  |     |    |                     |              |                  |          |    |

Signature of Quality Control Inspector \_\_\_\_\_  
Signature of Quality Control Manager \_\_\_\_\_